

- ROLAND, A. E. & W. G. DORE. 1942. Notes on the Flora of Nova Scotia III. *RHODORA* **44**: 334-338.
- SCHOFIELD, W. B. & E. C. SMITH. 1953. Contributions to the Flora of Nova Scotia III: Some interesting white forms. *Can. Field Nat.* **67**: 93-94.
- SMITH, E. C. & W. B. SCHOFIELD. 1952. Contributions to the Flora of Nova Scotia I & II. *RHODORA* **54**: 220-228.
- SMITH, E. C. & J. S. ERSKINE. 1954. Contributions to the Flora of Nova Scotia IV. *RHODORA* **56**: 242-252.

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## PLANTS NEW TO MISSOURI

E. J. PALMER AND J. A. STEYERMARK

SINCE the publication in 1935 of the Catalogue of the Flowering Plants of Missouri (*Ann. Mo. Bot. Gard.* **22**: 375-758), work has continued on the further botanical exploration of the state of Missouri and a large number of plants, including several genera not previously known in the state, have been added. The junior author of the Catalogue and of this paper has been particularly active and has made many collecting trips into nearly all parts of the state, resulting in some surprising discoveries. The senior author, since returning to Missouri in 1948, has devoted what time he could to an intensive exploration of several of the southwestern counties, with a few excursions into other sections.

The resulting new discoveries have been reported in *Rhodora* from time to time in several short papers contributed by the junior author and one by the senior author, as well as in a joint paper on new fern discoveries in the *American Fern Journal* **42**: 61-66. 1952. William B. Drew also reported the discovery of four new records for the state (*RHODORA* **44**: 248. 1942), George B. Van Schaack reported *Calamagrostis insparata* new to the state (*RHODORA*, **56**: 43. 1954), and C. L. Kucera published his findings of *Lyonia ligustrina* in Missouri (*RHODORA*, **55**: 155. 1953). The large number of additional plants now known in the state, as well as many changes in nomenclature and the interpretation of species necessary to bring it into conformity with the eighth edition of Gray's Manual, have made a revision of the Catalogue desirable, and it is hoped that such a revision can be published in the near future. The present paper is a further report of progress and a review of

what has been done up to this time in increasing our knowledge of the state flora.

*HYSTRIX PATULA* Moench var. *BIGELOVIANA* (Fern.) Deam. This variety has not been reported previously from Missouri. It was found on wooded north-facing ravine slopes tributary to Mill Creek ditch of Missouri River valley, T59N, R38W, sect. 14, 4 mi. south of Oregon, Holt Co., July 20, 1952, *Steyermark* 73829.

*LOLIUM MULTIFLORUM* Lam. var. *DIMINUTUM* Mutel. Not previously reported from Missouri, this variety was found in open grassy woodland near lake, Lewis and Clark State Park, T55N, R37W, sect. 33 and 28, ½–1 mi. southwest of Armour, Buchanan Co., August 20, 1950, *Steyermark* 70116.

*MUHLENBERGIA MEXICANA* (L.) Trin. forma *AMBIGUA* (Torr.) Fern. The record for this form is based upon the following specimen: gravelly open places along South Fork of Spring Creek along highway A, T23N, R8W, south ½ sect. 33, 8 mi. south of West Plains, Howell Co., September 3, 1949, *Steyermark* 69076.

*PANICUM CONSANGUINEUM* Kunth. This species, primarily of Atlantic and Gulf Coastal Plain distribution from northern Florida to eastern Texas north to southeastern Virginia, Tennessee, and Arkansas, has not been reported previously from Missouri. It is based upon the following collection: wooded oak-hickory sandy knoll, T26N, R14E, sect. 34, 4½ mi. southeast of Sikeston, New Madrid Co., May 18, 1950, *Steyermark* 69667. This station is in the southeastern corner of Missouri, where occur many species the affinities of which align them with the flora of the Mississippi Embayment of the Gulf Coastal Plain.

*PASPALUM LAEVE* Michx. (typical). The typical form of this species with the spikelets 2–2.5 mm. broad and with the leaf-blades and sheaths glabrous or nearly so has not been reported previously from Missouri. It is now known by the following collections: marshy springy ground at base of slopes of ravines bordering east-facing escarpment on Crowley Ridge, just south of Stephens Cemetery, T24N, R10E, sect. 30, 1½ mi. south of Pyletown, Stoddard Co., August 29, 1948, *Steyermark* 66187; knolls and depressions, T22N, R4E, sect. 35, 4 mi. south of Naylor, Ripley Co., October 20, 1948, *Steyermark* 66943; wet sedgy swales, wet woods, and swampy thickets along highway 25, 3 mi. west of Arbor, Cape Girardeau Co., September 22, 1946, *Steyermark* 64158.

*SCIRPUS POLYPHYLLUS* Vahl. This addition to the state flora is based upon the following collections: swampy meadow along Bee Fork, on property of Joe Goforth, T32N, R2W, sect. 23, 4½–4¾ mi. east of Bunker, Reynolds Co., July 7, 1951, *Steyermark* 72041; swampy meadow along Bee Fork, T32N, R2W, sect. 22, on property of Mr. Reese, 4 mi. southeast of Bunker, Reynolds Co., July 7, 1951, *Steyermark* 72002.

*CAREX ABDITA* Bickn. Whether or not this taxon can be maintained as distinct from *C. umbellata* Schkuhr is questionable. It perhaps should be considered only as a variety of *C. umbellata*. On the basis of the

characters used for separating the two taxa, the following Missouri collection, with perigynia 2.2–2.8 mm. long with short beaks 0.5–0.6 mm. long and acute pistillate scales below becoming more attenuate in the upper ones, may be cited: rocky ground east of highway K, T33N, R33W, sect. 27, 2 mi. northwest of Liberal, Barton Co., April 16, 1949, *Steyermark* 67176.

*CAREX BUXBAUMII* Wahlenb. forma *DILUTIOR* Kükenth. This form, in which the pistillate scales are whitish or pale brown, has not been reported previously from the state. It was found in a calcareous swampy meadow associated with other species of which the ranges in the United States are northward or northeastward: swampy meadow along West Fork of Black River, on property of D. C. Miner, T33N, R3W, sect. 23 and NE sect. 26, 3–3½ mi. northwest of Greeley, Reynolds Co., July 6, 1951, *Steyermark* 71984.

In this collection some of the terminal spikes are staminate at the base as well as at the summit, while others are staminate only in the upper half. Dr. F. J. Hermann, who has kindly verified the junior author's determination, writes of the collection as follows: "The scales of *Carex Buxbaumii* normally tend to bleach out with age, as they do in many other species found in exposed habitats, so that typical *Buxbaumii* must often become f. *dilutior* late in the season. In the sheet you sent me both terminal spikes are staminate at the base as well as at the apex, the perigynia being restricted to the central portion. However, I doubt that sexual aberration in the terminal spike of this species is anymore deserving of recognition than scale-color. I have f. *heterostachya* and the typical form on the same plant in a collection from northern Michigan."

*CAREX DEBILIS* Michx. (typical). The typical form of this species has not been reported previously from Missouri. It is known from the following collection: depressions in swamp dominated by *Lindera melissae-folium*, surrounded by sandy, wooded and cultivated knolls, T22N, R4E, SE part of sect. 35, 4¾ miles south of Naylor, Ripley Co., May 28, 1951, *Steyermark* 71228. In this collection the perigynia are 8–8.5 mm. long, but the pistillate scales are greenish-white.

*CAREX DIGITALIS* Willd. var. *MACROPODA* Fern. This variety, previously unknown from Missouri, is represented by the following collections: north-facing slopes along Crooked Creek, T31N, R9E, sect. 16, 2–3 mi. southeast of Bessville, Bollinger Co., May 17, 1950, *Steyermark* 69613a; rich, north-facing ravine along tributary of Dry Fork of Charrette Creek, T46N, R2W, sect. 19, 4 mi. northwest of Hopewell, 7 mi. southwest of Warrenton, Warren Co., June 8, 1952, *Steyermark* 73327.

*CAREX STRICTA* Lam. var. *STRICTIOR* (Dewey) Carey. Dr. F. J. Hermann has kindly verified the junior author's determination of this species, neither the typical form of the species nor any of its varieties having been previously identified correctly from the state. The following collections are given: swampy meadow along Bee Fork, T32N, R2W, sect. 23, 4½ mi. southeast of Bunker, Reynolds Co., May 29, 1951, *Steyermark* 71303; swampy meadow along Bee Fork, on property of Joe Goforth, T32N,

R2W, sect. 23,  $4\frac{1}{2}$ – $4\frac{3}{4}$  mi. east of Bunker, July 7, 1951, *Steyermark 72032*, "in dense colonies; leaves dark green; perigynia appressed."

*POPULUS NIGRA* L. var. *ITALICA* Muenchh. Several small specimens escaped from cultivation and spreading form the basis for the following collection: open ground, border of woods, 4 mi. northwest of Webb City, Jasper Co., Sept. 27, 1952, *Palmer 55194*.

*ULMUS PUMILA* L. This species, now becoming common in cultivation, seems to be well established in the rocky valley of Hickory Creek, in Newton County, where a number of specimens of different sizes were seen. At the McDonald County station only one tree was seen. Rocky waste ground along Hickory Creek, Neosho, Newton Co., Oct. 19, 1953, *Palmer 57208*; same locality, Nov. 3, 1953; same locality (in bloom), March 6, 1954, *Palmer 57218*; near Beaver Brook Spring, Anderson, McDonald Co., Oct. 19, 1954, *Palmer 59240*.

*PILEA PUMILA* (L.) Gray. (typical). The typical form of this species is based upon the following collection: along Bookout Branch and ravines tributary to Spring Creek, T64N, R18W, SW  $\frac{1}{4}$  sect. 21 and NE  $\frac{1}{2}$  sect. 28,  $4\frac{1}{2}$  mi. northeast of Green City, Sullivan Co., August 25, 1950, *Steyermark 70149*.

*CERASTIUM VISCOSUM* L. forma *APETALUM* (Dumort.) Mert. & Koch. This form, not previously reported from the state, is represented by the following collection: open grassy ground on top of ridge in sect. 24, cherty limestone upper slopes above northwest-facing wooded bluffs along Flat Creek, T45N, R21W,  $2\frac{1}{2}$  mi. south of Sedalia, Pettis Co., May 20, 1949, *Steyermark 67973*.

*NYMPHAEA ODORATA* Ait. forma *ROSEA* Guillon. This form of the water-lily, in which the petals are roseate, was found well established in an artificial lake in northern Missouri. It has not been previously reported from the state. According to Mr. Raymond Buster of Ethel, Missouri, the plants were purchased from Vaughan's Seed Store in Chicago and planted in the lake ten to fifteen years ago. These plants are established, growing in a colony in which the flowers open in the morning and close about 2 p.m. The petals, on several flowers examined, number about 28 and vary from obtuse to rounded at the apex; there are 4 sepals present. The flowers are fragrant, the petioles are coiled at the base, and the leaves are all floating and purple beneath. The data for this collection are as follows: near shore of Ethel Lake, T59N, R17W, S part of sect. 25 and N part of sect. 36,  $\frac{3}{4}$  mi. west of Ethel, Macon Co., Sept. 14, 1954, *Steyermark 77311*.

*DRABA VERNA* L. var. *BOERHAAVII* Van Hall. This variety, not previously reported from the state, is based upon the following collection: grassy, rocky, open places along road bordering limestone wooded banks along creek along highway 21 and 49, just northeast of Centerville, Reynolds Co., March 30, 1949, *Steyermark 67107*.

*SEDUM SARMENTOSUM* Bunge. This is an evident escape from cultivation and it may have been originally planted in the vicinity, but is now well established and locally abundant in a wild spot near one of the spring

heads. The data for the collections cited are: on moist mossy rocks, Haddock Spring, Newton Co., Nov. 3, 1953, *Palmer 57195*; same locality, May 19, 1954, *Palmer 57624*.

*SPIRAEA PRUNIFOLIA* Sieb. and Zucc. This species, not recorded in the 8th edition of Gray's Manual, has become thoroughly established in at least two places in Missouri, and is based upon the following collections: escaped from old cemetery in woods on ridge top and established as a shrub forming thickets on north-facing, steep, wooded bluffs with limestone at top along Missouri River, T44N, R10W, sect. 16, just north and northwest of Osage City, Cole Co., May 20, 1950, *Steyermark 69747*; planted at edge of cemetery, but escaping and thoroughly established along fence row, above ravines bordering Wyaconda River, T62N, R6W, sect. 18, 7 mi. northwest of Canton, Lewis Co., July 27, 1952, *Steyermark 74161*.

*PYRUS MELANOCARPA* (Michx.) Willd. This remarkable addition to the state flora of an essentially boreal and northerly distributed species was discovered, not in the northern section of Missouri, where it might have been expected, but in the southeastern corner of the state ordinarily occupied by species of an essentially Mississippi Embayment-Gulf and Atlantic Coastal Plain distribution. The data for the collection are as follows: in midst of dense alder thickets along spring branch east and southeast of Pleasant Valley Church, east of spring-fed creek, along flood plain and Crowley Ridge junction, on property of E. Walker, T25N, R11E, sect. 6, 3½ mi. southeast of Bloomfield, Stoddard Co., August 20, 1954, *Steyermark 76825*, "plants 3 feet tall."

*RUBUS ALLEGHENIENSIS* Porter var. *PLAUSUS* Bailey. Not previously reported for Missouri, this variety is based upon the following collection: in open ground of valley between ravines tributary to wooded slopes along north side of North River, "Miller's Hills," T59N, R9W, west part of sect. 2, 2½ mi. southeast of Burksville, Shelby Co., June 5, 1951, *Steyermark 71705*.

*ROSA MICRANTHA* Sm. This species has not been recorded previously from the state. It is based upon the following collection: fallow pasture above wooded slopes following ravine along tributary to Salt River, T60N, R13W, NE ¼ sect. 1 and sect. 36, 1½ mi. northwest of Locust Hill, Knox Co., Sept. 18, 1950, *Steyermark 70672*.

*GERANIUM DISSECTUM* L. This and the following record of *Geranium molle* were originally brought to the attention of the junior author by Mr. Oscar Petersen, poet-naturalist and amateur botanist of St. Louis Co. Both species are of spontaneous occurrence and have become well established on his property since 1951. The data for this collection are as follows: on property of Mr. Oscar Petersen, 267 Elm Ave., Glendale, St. Louis Co., June 7, 1952, *Steyermark 73314*.

*GERANIUM MOLLE* L. Collected on property of Mr. Oscar Petersen, 267 Elm Ave., Glendale, St. Louis Co., June 7, 1952, *Steyermark 73315*.

*EUPHORBIA GEYERI* Engelm. This species, not previously known from a definite Missouri collection, was found near the Iowa line and is based upon the following data: natural sandy prairie on slopes of old river ter-

race on beach paralleling Des Moines River, T65N, R6W, sect. 9, 1½ mi. southeast of St. Francisville, Clark Co., August 13, 1949, *Steyermark 68876*, "plant prostrate; leaves pale beneath."

*ACER RUBRUM* L. forma *TOMENTOSUM* (Desf.) Dansereau. This form, not previously reported from Missouri, is based upon the following collection: cherty upper slopes of ravine tributary to Little Niangua River, T38N, R18W, sect. 4, 4½ mi. southeast of Barnumtown, Camden Co., July 6, 1952, *Steyermark 73743*.

*JUSSIAEA URUGUAYENSIS* Camb. This South American plant has become quite abundant and grows in large colonies for some distance along the creek in association with several other introduced plants, including *Phalaris arundinacea* L., *Vicia Cracca* L., *Myriophyllum brasiliense* Camb., and *Myosotis scorpioides* L. The garden Forget-me-not is also very abundant along rocky margins for some distance up and down the creek. It had previously been recorded from the vicinity of St. Louis. The data for the *Jussiaea* collection are as follows: in shallow running water of Hickory Creek, Neosho, Newton Co., Oct. 12, 1953, *Palmer 57068*.

*GAYLUSSACIA BACCATA* (Wang.) K. Koch. Another remarkable discovery, this species can now be definitely added to the known flora of the state, where it was found in an unglaciated section of east-central Missouri north of the Missouri River, where *Trillium nivale* also occurs. It was growing with *Vaccinium vacillans* and was almost mistaken in the field for that species. The data for the collection are as follows: cherty upper slopes above north-facing limestone bluffs along West Fork of Cuiivre River, T50N, R3W, sect. 32, 8½ mi. northeast of Bellflower, Montgomery Co., Sept. 16, 1954, *Steyermark 77419*.

*DODECATHEON MEADIA* L. var. *BRACHYCARPUM* (Small) Fassett forma *PALLIDUM* Fassett. This form of the variety, without red at the base of the leaves, is based upon the following collection: north- and northeast-facing, limestone, wooded, small bluffs along Camp Ground Creek, T40N, R11W, sect. 6, 6 mi. northwest of Tavern, Maries Co., May 19, 1950, *Steyermark 69701*.

*BARTONIA PANICULATA* (Michx.) Muhl. (typical). This surprising discovery was made at the head of a sandy spring branch where *Ilex opaca* and *Fraxinus tomentosa* occurred at the base of Crowley Ridge in the southeastern section of Missouri, noted for its prominence of species following a Mississippi Embayment-Atlantic and Gulf Coastal Plain distributional pattern. The locality was not far from the alder thickets where *Pyrus melanocarpa* (reported above) was discovered on the same day. In the Missouri collection the corolla lobes are creamy-white above, 1 mm. wide, the anthers are yellow, and the filaments white below and lavender above. The data for this collection are as follows: on mossy ground at head of sandy spring branch, at base of sandy ravine near junction of Crowley Ridge and lowland, T25N, R11E, NW ¼ sect. 6, 3½ mi. southeast of Bloomfield, on property of Mr. Martin, Stoddard Co., August 20, 1954, *Steyermark 76784*.

*CONVOLVULUS SEPIUM* L. var. *REPENS* (L.) Gray. Although Missouri

is in the general range stated in the 8th edition of Gray's Manual for this variety, it has not been recorded previously for the state. The record for its occurrence is based upon the following collection: swales in bottoms of Missouri River valley, T59N, R38W, SW sect. 14 and N part of sect. 23, 4-4½ mi. south of Oregon, Holt Co., July 20, 1952, *Steyermark 73846*.

PHLOX DIVARICATA L. var. LAPHAMII Wood, forma **candida** Palmer & Steyermark, f. nov. A typo differt floribus albis.—Low, rich, alluvial woods, 1 mile west of Nashville, Barton County, Missouri, April 30, 1953, *Ernest J. Palmer 55411*, HOLOTYPE, in Palmer Herb., isotype in Herb. Chi. Nat. Hist. Mus.; terrace along alluvial bottoms of Grand River along route 36, 4 mi. southwest of Chillicothe, Livingston Co., May 1, 1950, *Julian A. Steyermark 69584*, PARATYPE, in Herb. Chi. Nat. Hist. Mus.

It is necessary to give a name to the white-flowered form of *Phlox divaricata* var. *Laphamii*. Dr. Wherry lists this white-flowered form in *Bartonia* 12: 34. 1930, but as stated by him in a recent communication with the present authors, his reference to the albino form, without a diagnosis or type specimen indicated, is not validly published.

LITHOSPERMUM CANESCENS (Michx.) Lehm. forma **pallidum** Palmer & Steyermark, f. nov. A typo recedit corollis pallido-luteis.—Along south-east side of highway 54, ½ mi. southwest of junction with highway 154, T53N, R4W, W part of sect. 25, 4 mi. WSW of Curryville, Pike Co., Missouri, April 30, 1952, *Julian A. Steyermark 73223*, HOLOTYPE, in Herb. Chi. Nat. Hist. Mus., isotype in Mo. Bot. Gard. Herb.

This form of the common *Lithospermum canescens* has cream-colored to pale yellow, instead of orange flowers. About a dozen plants were found growing scattered among the orange-flowered ones. Individual plants transplanted to the garden of the junior author have maintained the pale color of the corolla.

LITHOSPERMUM CAROLINIENSE (Walt.) MacMill. I. M. Johnston (*Journ. Arn. Arb.* 33: 339-340. 1952) combines *L. croceum* Fernald with *L. caroliniense*, noting that (p. 340) "the floral differences used by Fernald to distinguish *L. croceum* from *L. caroliniense* are those which distinguish the short- and long-styled flowers of the species." We are in agreement with Dr. Johnston in combining the two species, as the differences between the two taxa, as given in the 8th edition of Gray's Manual, intergrade. If, however, *L. caroliniense* is maintained as distinct, the following Missouri collection should be cited: sandy open banks of formerly original sandy prairie, along west side of road, T25N, R14E, sect. 10, 6½ mi. southeast of Sikeston, New Madrid Co., May 18, 1950, *Steyermark 69674*.

VERBENA CANADENSIS (L.) Britt. forma **candidissima** (Haage & Schmidt) Palmer & Steyermark, comb. nov. *V. canadensis* var. *candidissima*, in *Royal Hort. Soc. Dict. Gardening* 4: 2210. 1951.

The white-flowered form of this species has not been recorded previously from Missouri. It is based upon the following collection: exposed limestone bluff along road, along Long Creek, just north of Oasis, T22N, R22 W, sect. 10, 11, and 3, Taney Co., April 28, 1949, *Cora Steyermark s.n.* In this collection the corolla lobes are whitish and the corolla tube is whitish with pale lilac suffused throughout.

VERONICA DIDYMA Ten. This species has not been reported previously from Missouri. It is based upon the following collection: near gas station one mile north of Kohler City, Jefferson Co., April 20, 1952, *H. E. Ahles* 5848.

GALIUM TRIFLORUM Michx. × G. CIRCAEZANS var. HYPOMALACUM Fern. The data for this collection are as follows: in wooded ravines tributary to Thorp Branch, T59N, R8W, NE sect. 12, 4½ mi. southeast of Oregon, Holt Co., July 20, 1952, *Steyermark* 73804. The present collection, growing with *G. circaezans* (*Steyermark* 73804a), consists of plants having the leaves in 6's and elliptic-lanceolate as in *G. triflorum*, but with pubescent stems and the midrib of the lower leaf surface pilose as in *G. circaezans* var. *hypomalacum*. So far as known, this apparent natural hybrid has not been recorded previously in literature.

HOUSTONIA PUSILLA Schoepf forma ALBIFLORA Standl. The form of the species with white corollas has not been recorded previously from Missouri. The following collection is representative: open ground in valley of Ottery Creek, along highway A, northeast of Redmondville, Iron Co., April 26, 1952, *Steyermark* 73101. In this collection the plants are of a much lighter green color than in typical purple-flowered *H. pusilla* (*H. patens* Ell.). The width and length of the white corollas vary considerably within a given colony of the plants. Other Missouri collections which may be referred to this form are *Steyermark* 4599 from Pulaski Co. and 4592 from Phelps Co. Although the corollas in these last two collections vary from white to white with pale blue or lilac, they are generally white throughout.

SPECULARIA LAMPROSPERMA (McVaugh) Fern. × S. LEPTOCARPA (Nutt.) Gray. In a colony of the two species named above, with *S. lamprosperma* predominating, were found a few plants with characters quite intermediate between the two and of evident hybrid origin. The data for this collection are: chert glades along Shoal Creek, 4 mi. southwest of Joplin, Newton Co., May 29, 1952, *Palmer* 54078.

LOBELIA CARDINALIS L. forma ROSEA St. John. Not previously recorded from Missouri, this form of the cardinal flower was collected in a wet, calcareous meadow along Parker Branch of West Fork of Black River, T33N, R3W, west part of sect. 15, ¼ mi. northwest of Marcoot, 5 mi. northwest of Greeley, Reynolds Co., Sept. 24, 1951, *Steyermark* 72729. In this collection the corolla tube is pink to rose-colored, the corolla lobes are pink on the outside, white on the inside, and the staminal tube is white.

ASTER AZUREUS Lindl. forma LAEVICAULIS Fern. The following collection may be referred to this form, not previously reported from the state: upland roadside banks, T59N, R31W, sect. 4, 3¼ mi. southwest of Fairport, Dekalb Co., Sept. 27, 1951, *Steyermark* 72869. This collection represents an unusually floriferous specimen, which may actually be a hybrid between *A. laevis* and *A. azureus*, with both of which species the plants were growing. The upper surface of the leaves in this collection are scabrous as in *A. azureus* and the stems are glabrous as in *A. laevis*.

ASTER CORDIFOLIUS L. var. MORATUS Shinnars. Not previously re-



ported for the state, this variety is based upon the following collection: along base of La Motte sandstone bluffs along Terre Bleue Creek, T37N, R6E, south part of sect. 20 and north part of sect. 29, 2-2½ mi. south of Thurman, 5-6 mi. northwest of Sprott, Ste. Genevieve Co., October 3, 1950, *Steyermark* 71041.

ASTER CORDIFOLIUS L. var. POLYCEPHALUS Porter. In the 8th edition of Gray's Manual, the range for this variety is given as "SW. Que. to Ind., s. to N.E. and Ga." In addition to a specimen from Boone County previously recorded in our catalogue, it may be credited to Missouri on the basis of the following collection: limestone glade along highway 131, on south side of South Fork of Blackwater River, T46N, R28W, NW ¼ sect. 26, 3 mi. north of Holden, Johnson Co., Sept. 25, 1951, *Steyermark* 72751.

ASTER DUMOSUS L. var. STRICTIOR T. & G. Not previously reported from Missouri, this variety may be added to the state flora on the basis of the following collection: meadow along north side of highway 80, 4.9 mi. southwest of West Plains, Howell Co., Sept. 25, 1949, *Steyermark* 69336.

ASTER OBLONGIFOLIUS Nutt. forma ROSEOLIGULATUS (Benke) Shinnars. This form has not been recorded previously from the state. It is based upon the following collection: edge of limestone escarpment of SE-facing Chapel Bluff along Niangua River, T37N, R18W, sect. 26, 8-8½ mi. southeast of Macks Creek, Camden Co., October 24, 1954, *Steyermark* 78223. The rays in this collection varied from pink to rose-colored.

ASTER VIMINEUS Lam. (typical). Although the var. *subdumosus* Wieg. is known from Missouri, the typical variety of the species has not previously been reported from the state. It is based upon the following collection: alluvial lower part of north-facing limestone slopes along Salt River, Mark Twain State Park, T54N, R8W, sect. 9 and 16, 1-2 mi. southwest of Florida, Monroe Co., Sept. 25, 1948, *Steyermark* 66529. In this collection the ray florets vary from 16 to 20 in number, the lobes of the corollas of the disk florets are erect, about ⅔ the length of the throat, and are 0.9-1 mm. long.

HELIANTHUS ANNUUS L. var. NANUS fl. pl. Hort. This double-flowered variety with the stems averaging about 3 feet high is locally common in Holt Co., northwestern Missouri. It has not been previously reported for the state. The collection upon which it is based is as follows: common escape throughout this area in low ground in extensive swale, T62N, R40W, sect. 25, 3¾ mi. southeast of Craig, Holt Co., July 20, 1952, *Steyermark* 73788. The robust-stemmed (averaging 6 feet tall), double-flowered variety is referred to var. *chrysanthemoides* Cockerell (Am. Nat. 49: 617. 1915), but the present collection is better referred to the dwarf type.

LIATRIS SCABRA (Greene) K. Schum. This species has not been previously reported from the state. It is based upon the following collection: ravine slopes tributary to river, along Little Black River, between Greenville Ford and Pennington Ford, T24N, R3E, sect. 10, 15, 22, 23, 26, 24, and 25, 10-13 mi. northeast of Doniphan, Ripley Co., Sept. 1, 1946, *Steyermark* 63966.

CICHORIUM INTYBUS L, forma ALBUM Neum. This form with the flowers entirely white has not been recorded previously from Missouri. It is based upon the following collection: along route 129, 2.3 mi. south of Green City, Sullivan Co., August 25, 1950, *Steyermark 70127*.—WEBB CITY, MISSOURI, CHICAGO NATURAL HISTORY MUSEUM.

CONTRIBUTIONS TO THE FLORA OF SOUTHERN ILLINOIS.—Field work in southern Illinois the latter part of 1954 produced several species of plants new to Illinois. In addition, the ranges of other uncommon species have been extended by further collections.

Areas of particular interest occur in Randolph County; here are found such rare species for Illinois as *Pinus echinata*, *Asplenium bradleyi*, *Ranunculus harveyi*, *Talinum calycinum*, *Rhamnus caroliniana*, *Carex torta*, *Carex aquatilis* var. *altior*, and *Solidago buckleyi*.

Herbaria and their abbreviations for specimens cited in this paper are as follows: Southern Illinois University (SIU), University of Illinois (UI), Illinois State Museum (ISM), Illinois Natural History Survey (NHS), and that of the author (A).

#### SPECIES NEW TO ILLINOIS

CAREX DEBILIS Michx. The habitat in Illinois for this species is near the base of a densely shaded east-facing hillside. Its common associates at this station are *Spigelia marilandica* and *Pedicularis canadensis*. The species occurs in south-central and south-eastern Indiana, the nearest stations to ours being in Lawrence and Crawford Counties.<sup>1</sup> COLLECTION DATA: rich woods near Cave-in-Rock State Park, Hardin County, June 20, 1954, *Mohlenbrock 4257* (A).

CAREX SWANII (Fern.) Mackenz. The only report of this species from Illinois is based on a questionable specimen from Vermilion County, although it is not uncommon in western Indiana. It apparently is unknown from Missouri. Two plants at our station are growing at the base of a sweet gum (*Liquidambar styraciflua*). COLLECTION DATA: dry soil at the edge of a marsh, one mile north of Murphysboro, Jackson County, June 5, 1954, *Mohlenbrock 3327*. (A).

TALINUM CALYGINUM Engelm. Although this species is known from eastern Missouri, it appears that the present collection represents the first from Illinois.<sup>2</sup> A single plant was found growing along the edge of a sandstone bluff in Randolph County on August 15, 1954. A search for additional plants of this species a week later in the same area proved

<sup>1</sup> DEAM, CHARLES C. Flora of Indiana. 1940.

<sup>2</sup> Personal correspondence with Mr. Harry E. Ahles, University of Illinois Herbarium.